

Application Serial No. 09/928,077
Atty. Docket No. 13183 (6365/83213)

Amendment B After Final

Listing of and Amendments to the Claims:

1-24. (Cancelled).

25. (Previously presented) A hot-melt ink for use with an ink jet printing apparatus, the ink being a liquid at about 100°C to about 130°C and solidifying to a two-phase solid having an elastic phase and a crystalline phase, the ink consisting essentially of:

stearic acid present in a concentration of about 45 percent to about 95 percent of the ink;
an aromatic hydrocarbon resin first plasticizer present in a concentration of about 0.1 percent to about 25 percent of the ink;
a tri-block copolymer present in a concentration of about 0.5 percent to about 5.0 percent of the ink;
polyvinyl butyral in a concentration of about 0.5 percent to about 10 percent of the ink;
a fluorinated polyolefin copolymer present in a concentration of about 0.5 percent to about 10 percent of the ink; and
a colorant present in a concentration of about 2.0 percent to about 8.0 percent of the ink, wherein the polyvinyl butyral, in combination with tri-block copolymer forms an elastic phase of the ink upon solidifying, and wherein the aromatic hydrocarbon resin exhibits sufficiently low viscosity at elevated temperatures to permit ejection of the liquid ink from the printing apparatus.

26. (Canceled)

27. (Previously presented) The hot-melt ink in accordance with claim 25 wherein the tri-block copolymer is a styrene-butadiene-styrene block copolymer.

28. (Previously presented) The hot-melt ink in accordance with claim 25 wherein the tri-block copolymer is a styrene-isoprene-styrene block copolymer.

Application Serial No. 09/928,077
Atty. Docket No. 13183 (6365/83213)

Amendment B After Final

29. (Previously presented) The hot-melt ink in accordance with claim 25 wherein the colorant is a dye.

30. (Currently Amended) A method for producing indicia on a substrate comprising the steps of:

heating to liquid a non-aqueous, solid hot-melt ink formulation to a temperature of not more than 130°C said ink formulation including a fatty acid carrier, a first plasticizer, a second plasticizer different from said first plasticizer, and a tri-block copolymer ~~stearic acid present in a concentration of about 45 percent to about 95 percent of the ink, an aromatic hydrocarbon resin first plasticizer present in a concentration of about 0.1 percent to about 25 percent of the ink, a tri-block copolymer present in a concentration of about 0.5 percent to about 5.0 percent of the ink, polyvinyl butyral in a concentration of about 0.5 percent to about 10 percent of the ink, a fluorinated polyolefin copolymer present in a concentration of about 0.5 percent to about 10 percent of the ink and a colorant present in a concentration of about 2.0 percent to about 8.0 percent of the ink, the polyvinyl butyral, in combination with tri-block copolymer forming an elastic phase of the ink upon solidifying, wherein the aromatic hydrocarbon resin exhibiting sufficiently low viscosity at elevated temperatures to permit ejection of the liquid ink from the printing apparatus;~~

ejecting the liquid from a printing device; and

allowing the liquid to solidifying solidify.

31. (Original) The method for producing indicia in accordance with claim 30 wherein the liquid is heated to a temperature of not more than 120°C.